Glossary

A argon

absorption a process in which an object collects other materials within itself. Two examples of absorption are a sponge absorbing water and the tissues of the middle ear absorbing oxygen from the middle ear cavity.

acceleration a change of velocity in magnitude or direction. It is expressed in feet per second per second, or fps^2. The most common accelerative force is gravity. The acceleration produced by gravity is a constant and has a value of 32.2 fps^2.

acclimatization the physiological adjustment of an organism to a new and physically different environment. An example would be the adaptation of valley dwellers to life in mountainous regions where ambient pressures are relatively low. In this example, acclimatization would occur through a temporary adjustment in cardiac and respiratory rates and an increase in the number of red blood cells in the blood.

ACPM aircrew protective mask

acute an incident or disease characterized by sharpness or severity. It has a sudden onset, sharp rise, and short course. In physiological training, this term usually describes a severe chamber reaction in which the onset is rapid and immediate aid is required.

AD Dictionary of United States Army Terms (short title)

AF Air Force (USAF)

AFFF aqueous film-forming foam

AFP Air Force pamphlet

AFR Air Force regulation

AGARD Advisory Group for Aerospace Research and Development

AGL above ground level

AGSM anti-G straining maneuver

AH attack helicopter

AHO above highest obstacle

alkalosis the term used by physiological training personnel to refer to a respiratory condition in which there is an increase in the basicity of the blood produced by the abnormally rapid respiration and elimination of excessive amounts of carbon dioxide.

ALSE aviation life-support equipment

alt altitude

altimeter an instrument used to measure the altitude of an aircraft or chamber. By making appropriate adjustments and pressure settings, the altimeter may be set to indicate the pressure altitudes such as are used in chamber operations or the true altitudes used during most Army aircraft flights.

altitude sickness in acute cases, the symptoms of hypoxia seen especially in flying personnel and in individuals who are new arrivals in mountainous regions of high altitude; in chronic cases, the symptoms of hypoxia usually seen in individuals who have been at high altitudes in mountainous regions for long periods. Apparently, their physiological compensatory processes for hypoxia become inadequate. Descent to lower altitudes usually brings relief.

alveoli the saclike, extremely thin-walled tissues of the lungs in which the flow of the inspired gases terminates and across the walls of which gas diffusion takes place between the lungs and the blood.

ambient the existing and adjacent environment. Ambient air pressure is the pressure of the immediate environment.

angular acceleration acceleration that results in a simultaneous change in both speed and direction.

anoxia a total absence of oxygen in the blood presented to the tissues or the inability of the tissues to use the oxygen delivered to them. This is an extremely severe and morbid condition. The lack of oxygen with which physiological training personnel are concerned is, strictly speaking, hypoxia, not anoxia.

AR Army regulation

arterial saturation the hemoglobin in the arterial blood containing as much oxygen as it can hold. This gives an arterial oxygen concentration of about 20 milliliters of oxygen per 100 milliliters of blood.

arteries the blood vessels that possess relatively thick, muscular walls that transport oxygenated blood from the left ventricle to the body tissues. They also transport poorly oxygenated blood from the right ventricle to the lungs.

arterioles the smaller extensions of the arteries. The muscular walls of these arterial extensions are responsive to nerve and chemical control by the body and thereby regulate the amount of blood presented to the capillaries.

astigmatism a visual problem caused by an unequal curvature of the cornea or lens of the eye.

ATM aircrew training manual

ATP aircrew training plan

atmosphere the gaseous layer surrounding the earth that is composed primarily of oxygen and nitrogen.

attenuation the amount of noise protection provided by a specific protective device. The attenuation of any given noise protective device is the number of decibels it reduces the total energy reaching the eardrum.

attn attention

auricles (atria) the upper two chambers of the heart, designated the right and left auricles. These chambers receive blood from the vessels and force it into the ventricles.

autokinesis an illusion in which a single, stationary point of light seen against a dark background appears to move erratically. The illusion is probably caused by the involuntary movement of the eyeballs because relative points of reference are missing.

AVGAS aviation gasoline

AWR airworthiness release

barodontalgia (aerodontalgia) a toothache that occurs during ascent to altitude or during descent. Causes for this painful condition include poor or loose restorations; presence of decay, infection, or abscess; or gritting of the teeth in times of stress.

barometer an instrument used to measure atmospheric pressure. It is based on the principle that the pressure exerted by the ambient air is sufficient to hold up a column of mercury. The height to which this column is held varies directly with the air pressure. The aneroid barometer operates on the principle that the volume of gas in a flexible, enclosed space will increase when the pressure on it decreases; for example, during ascent to altitude.

barometric pressure the pressure of the air in a particular environment as measured by the barometer. For example, at 18,000 feet in the altitude chamber, the barometric pressure should be 380 mm/Hg.

barotitis media a condition that develops when equalization of pressure in the middle ear cannot be accomplished during changes in barometric pressure.

bends A form of decompression sickness that may be produced by the liberation of gaseous emboli (bubbles), primarily nitrogen, in the tissues of the body. It is characterized by mild to incapacitating pains in the joints. It may be localized to a single area (for example, knee joint or finger joint); or, in severe cases, it may be generalized.

blackout a temporary blindness caused by an extinguished blood supply to the retina. Blackouts are usually seen during +Gz maneuvers. In such cases, the force exerted on the column of blood going to the eyes reduces the effective blood pressure in the vessels that go to the eyes, thereby reducing blood flow to the eyes. If continued, the force will actually stop the flow of blood to the retina.

B-LP ballistic and laser protective (eyewear)

Boyle's Law the physical law that states that the volume of a gas is inversely proportional to the pressure exerted upon it.

bronchi the two main tubes leading into the lungs from the trachea. They are part of the conducting portion of the respiratory system.

bronchioles the smaller tubules extending from each bronchus. Two types of bronchioles may be distinguished: the *conducting* bronchioles that provide the air passageway into the portion of the lungs where diffusion occurs and the *respiratory* bronchioles that contain some alveoli in their walls through which the diffusion of gases occurs.

C Celsius

calorie the amount of heat needed to raise the temperature of 1 gram of water from 250 degrees Celsius to 260 degrees Celsius.

capillaries the most minute blood vessels. Their walls are of one-cell thickness. These vessels are the link between the arteries and veins; through them, gas diffusion takes place between the body tissues and the blood.

cardiac arrhythmia any variation from the normal rhythm of the heart.

cataract formation a clouding or opacification of the lens resulting from hardening of the lens that usually occurs during the aging process.

CB chlorobromomethane

CCl_4 carbon tetrachloride

centrifugal force the force exerted on an object moving in a circular pattern. It causes the object to break away and move outward in a straight line.

centripetal force the force acting on an object moving in a circular pattern that holds the object on its circular path.

CEP communications earplug

CH cargo helicopter

chemoreceptors the receptors adapted for excitation by chemical substances; for example, aortic and carotid bodies that sense reduced O_2 content in the blood and automatically send signals to the cardiovascular and respiratory systems to make necessary adjustments.

chill factor the temperature decrease resulting from wind velocity. An increased cooling of exposed skin occurs when the skin is subjected to wind.

chloride shift the passage of chloride ions from plasma into the red blood cells when carbon dioxide enters the plasma from the tissues and the return of these ions to the plasma when carbon dioxide is discharged in the lungs.

chokes a form of decompression sickness that can occur at altitude. It is believed to be caused by gases evolving in the lung tissue. It is

characterized by a deep substernal pain or burning sensation, difficulty in breathing, and a nonproductive cough.

chronic a continued or prolonged condition; for example, a chronic illness would be an illness continuing for several years.

cilium a minute, vibratile, hairlike process attached to the free surface of a cell.

circadian rhythm the rhythmic biologic functions that are geared to an internal "biologic clock." Circadian rhythm affects such things as the sleep-wake cycle, hormone production, and body temperature.

circulation the blood movement throughout the body.

CNS central nervous system

CO carbon monoxide

CO_2 carbon dioxide

CoHb carboxyhemoglobin (found in the blood as a result of carbon monoxide inhalation)

coma a state of complete loss of consciousness from which the patient cannot be aroused despite the use of powerful stimulants.

combustion an act or instance of burning; a chemical process (as an oxidation) accompanied by the emission of heat and light.

conduction the heat transfer between molecules of adjacent bodies or in a single body. Heat flows from a body or a portion of a body with a lower heat content; for example, heat transfer from the hand to an ice cube. Physical contact is necessary for heat transfer by conduction.

cones the nerve cells in the central portion of the retina. Their greatest concentration is at the fovea. These cells are used for day vision and permit a person to see detail and to distinguish between various colors.

conjunctiva the mucous membrane lining the inner surface of the eyelids and covering the front part of the eyeball.

CONOPS continuous operations

continuous flow the earliest supplementary oxygen-breathing system designed for use in aircraft. It is still used today in certain transport aircraft and for air evacuation. This system provides a constant flow of oxygen to the mask.

contrast sensitivity the ability to detect objects on varying shades of backgrounds.

convection a form of heat transfer effected by the flow of fluid across an object of a different temperature. If the object is warmer, the heat will transfer from the object to the liquid or gas; if the object is cooler, the heat will transfer from the liquid or gas to the object.

convulsion a violent, involuntary contraction or series of contractions of voluntary muscles. This can occasionally be seen in hypoxic individuals or in people who have hyperventilated.

Coriolis illusion a condition that exists when the head is moved from one plane to another while the body is in rotation. This causes an illusion of moving in a plane or rotation in which no angular motion exists.

cornea the transparent part of the coat of the eyeball that covers the iris and pupil and admits light to the interior.

counterpressure the pressure exerted on the outside of the body to balance the high pressure of the gases in the lungs.

CREEP container, restraint system, environment, energy absorption, postcrash protection (aircraft design features that aid crash survival).

cyanosis the blueness of the skin caused by insufficient oxygenation of the blood. Blood that has most of its hemoglobin combined with oxygen appears bright red, whereas blood with low oxygenated hemoglobin appears reddish-blue or cyanotic.

DA Department of the Army

Dalton's Law the physical law that states that the total pressure of a mixture of gases is equal to the sum of the partial pressures of each of the gases in that mixture.

dark adaptation the process by which the retinal cells (rods) increase their concentration of the chemical substance (rhodopsin) that allows them to function optimally in twilight or in dimly illuminated surroundings. The process takes between 30 and 45 minutes in a darkened room.

DB dibromodifluoromethane

dB decibel

DCS decompression sickness

DEATH drugs, exhaustion, alcohol, tobacco, and hypoglycemia (self-imposed stress factors)

deceleration (negative acceleration) any reduction in the velocity of a moving body.

decibel An arbitrary unit for measuring the relative intensity of a sound.

decompression Any reduction in the pressure of one's surroundings. The chamber is decompressed each time it ascends.

decompression sickness the effects produced by the evolvement of body gases or the expansion of trapped body gases when the ambient pressure is decreased, as in ascent to altitude.

demo demonstration

denitrogenation the reduction of nitrogen concentration in the body. Nitrogen concentration can be reduced by breathing 100 percent oxygen over a period of time. This diffuses the nitrogen from the blood to the lungs and eliminates much of the nitrogen dissolved in the body tissues.

diffusion the process through which a substance moves from a place of high concentration to a new location of lower concentration. An example would be the diffusion of carbon dioxide from the tissue (with a partial pressure of 50 mm/Hg) to the blood (with a partial pressure of 40 mm/Hg).

diluter-demand oxygen regulator a supplementary oxygen-delivery system in which a dilution of pure oxygen (with ambient air) is provided automatically to the individual with each inspiration. At 34,000 feet, the system will deliver 100 percent oxygen automatically with each inhalation.

ejection a method of emergency escape from aircraft in which the pilot's or aircrew member's seat is propelled out of the aircraft by an explosive catapult or rocket charge.

endolymph the watery fluid contained in the membranous labyrinth of the ear.

EPT expected performance time

erythrocytes the red blood cells.

euphoria a feeling of well-being.

eustachian tube the passage leading from the middle ear to the pharynx. It provides the only means by which equalization can be maintained between the pressure in the middle ear and the ambient pressure during flight.

evaporation the process through which a liquid changes to a gaseous state and, in doing so, adds to its temperature. For example, when sweat evaporates (changes from a liquid to a vapor), it takes heat from the body and increases its own temperature.

expiration the act of exhaling, or breathing outward. Normally, expiration involves the contraction of certain abdominal muscles and the relaxation of the diaphragm.

explosive decompression a collision of two air masses that makes an explosive sound. A decompression that occurs in about one second or less is termed an “explosive decompression.”

external respiration the movement of air into and out of the lungs, the ventilation of the lung passages and the alveoli, and the diffusion of gas across the alveolar-capillary membrane.

F Fahrenheit

FAA Federal Aviation Administration

Fe_2 iron content within hemoglobin

FFD	full flying duty
flatus	the gas or air in the gastrointestinal tract.
FM	field manual
FOV	field of view
fpm	feet per minute
fps²	feet per second per second
frequency	the measurable characteristic of noise that gives it distinctive pitch; it is measured in cycles per second or hertz.
ft	feet
fwd	forward
G	unit of acceleration
G-force	gravitational force
G-force (+Gx)	the positive accelerative force that acts to move the body at a right angle to the long axis in a back-to-chest direction.
G-force (–Gx)	the negative accelerative force that acts to move the body at a right angle to the long axis in a chest-to-back direction.
G-force (+Gy, –Gy)	the positive or negative accelerative force that acts to move the body at a right angle to the long axis in a shoulder-to-shoulder direction.
G-force (+Gz)	the positive accelerative force that acts to move the body in a headward direction.
G-force (–Gz)	the negative accelerative force that acts to move the body in a direction toward the feet.
glare	a bright light entering the eye, causing rapid loss of sensitivity.
glottis	the vocal apparatus of the larynx.
GRAM	geometric perspective, motion parallax, retinal image size, aerial perspective
gravity	the force of attraction between the earth and all bodies on the earth by which each body is held to the earth's surface. The normal force that acts on all bodies at all times is 1 G.
H_2	hydrogen
H_2O	water
HAP	high-altitude parachutist
Hb	hemoglobin
He	helium
headward direction	the movement toward the head or in direction of the head.

heat in the absolute sense, the motion of the molecules of any substance. The greater the motion, the higher the heat content. The heat content of any object is measured in calories.

heat cramps a condition marked by sudden development of cramps in skeletal muscles. It results from prolonged work in high temperatures and is accompanied by profuse perspiration with loss of sodium chloride (salt) from the body.

heat exhaustion a condition marked by weakness, nausea, dizziness, and profuse sweating. It results from physical exertion in a hot environment.

heatstroke an abnormal physiological condition produced by exposure to intense heat and characterized by hot, dry skin (caused by cessation of sweating), vomiting, convulsions, and collapse. In severe cases, the body's heat control mechanism may be disturbed and the body temperature will rise to morbid levels.

hemoglobin an organic, chemical compound contained within the red blood cells that combines with oxygen to form oxyhemoglobin. In this combination, oxygen is transported in the body.

Henry's Law the physical law that states that the amount of gas that can be dissolved in a liquid is directly proportional to the pressure of that gas over the liquid.

Hg mercury

HOS helicopter oxygen system

HQ headquarters

hr hour

hyperbaric dive the exposure to increased air pressure by insertion of compressed air into a metal chamber to simulate the pressure found in underwater diving. This exposure to increased pressure is also used as therapy for certain illnesses such as evolved-gas disorders or decompression sickness.

hyperventilation an abnormally rapid rate of respiration that may lead to the excessive loss of carbon dioxide from the lungs and result in alkalosis. Hyperventilation is characterized by dizziness, tingling of the extremities, and in acute cases, collapse.

hypoxia any condition in which oxygen concentration of the body is below normal limits or in which oxygen available to the body cannot be used because of some pathological condition.

hypoxia (histotoxic) the hypoxia induced by the inability of the body's tissues to accept oxygen from the blood. An example of this type is cyanide or alcohol poisoning.

hypoxia (hypemic) the hypoxia caused by the reduced capacity of the blood to carry oxygen. Two examples of hypemic hypoxia are anemia caused by an iron deficiency or reduction in the amount of red blood cells and carbon monoxide poisoning caused by carbon monoxide

	combining with hemoglobin and reducing the oxygen-carrying capacity of the hemoglobin.
hypoxia (hypoxic)	the hypoxia caused by a decrease in the partial pressure of respired oxygen or by the inability of the oxygen in the air to reach the alveolar-capillary membrane; for example, strangulation, asthma, and pneumonia. This type is also known as altitude hypoxia.
hypoxia (stagnant)	a condition that results from the failure of the blood to transport the oxygen rapidly enough; for example, shock or a heart attack in which the blood moves sluggishly.
Hz	hertz
ICS	internal communication system
IERW	initial entry rotary wing
IFF	identification, friend or foe (radar)
IFR	instrument flight rules
illusion	a false impression or a misconception with respect to actual conditions or reality.
IMC	instrument meteorological conditions
inertial force	the resistance to a change in the state of rest or motion. A body at rest tends to remain at rest, or a body in motion tends to remain in motion.
in/Hg	inches of mercury
inspiration	the act of drawing air into the lungs.
intensity	the loudness or pressure produced by a given noise. It is measure in decibels.
internal respiration	the transport of oxygen and carbon dioxide by the blood and the diffusion of these gases into and out of the body tissues. It also includes the use of the oxygen in metabolism and the elimination of carbon dioxide and water as waste products.
iodopsin	a photosensitive violet retinal pigment found in retinal cones and important for color vision.
iris	the opaque, contractile diaphragm perforated by the pupil and forming the colored portion of the eye.
isobaric control	the cabin altitude control achieved by maintaining a constant pressure as the ambient barometric pressure decreases.
isobaric differential	a system built into certain aircraft to control the pressurized environment at a predetermined level.
jet stream	a relatively narrow band of high-velocity winds located between 35,000 and 55,000 feet at the approximate latitudes of 300 to 550.

jolt the rate of change of acceleration or rate of onset of accelerative forces.

JP jet propulsion

KITO known size of objects, increased and decreased size of objects, terrestrial association, and overlapping contours or interposition of objects

Kr krypton

LASIK laser in situ keratomileusis

LAV linear perspective, apparent foreshortening, and vertical position

lens the portion of the eye that focuses light rays on the retina. It is located behind the pupil.

leukocytes the white blood cells.

linear acceleration any change in the speed of an object without a change in its direction; for example, increasing the speed of an automobile from 40 to 65 miles per hour while driving down a straight-and-level highway.

L-1 maneuver a physiological maneuver that increases G tolerance.

m meter

MAC maximum allowable concentration

max maximum

med medical

MEDEVAC medical evacuation

mesopic vision a combination of cone and rod vision used at dawn or twilight wherein both rod cells and cone cells are used but not to their maximum point of efficiency.

metabolism the chemical changes in living cells by which energy is provided for vital processes and activities and new material is assimilated.

mg milligram

mil military

min minutes

miosis the contraction of the pupil of the eye.

mm/Hg millimeters of mercury

MOPP mission-oriented protective posture

mph miles per hour

MSL mean sea level

mt mount

N_2 nitrogen

NATO	North Atlantic Treaty Organization
NAVMED	Naval Medical Command
NAVSUP	Naval Supply Systems Command
NBC	nuclear, biological, chemical
ND	neutral density
Ne	neon
NH_3	ammonia
no	number
NSN	national stock number
NVG	night-vision goggles
O_2	oxygen
OBOGS	onboard oxygen-generating system
OH	observation helicopter
OLOGS	open-loop oxygen-generating system
otolith organs	the small sacs located in the vestibule of the inner ear.
oxidation	the act of oxidizing or state of being oxidized; to combine with oxygen. Chemically, it consists of an increase of positive charges on an atom or a loss of negative charges.
oxygen flow indicator	an instrument connected directly to the oxygen regulator that indicates the flow of oxygen through the regulator during the user's respiratory cycle. This flow is manifested by the movement of shutters on the face of the indicator.
oz	ounce
P	pressure
pallor	a paleness or absence of skin coloration.
PAO_2	alveolar partial pressure of oxygen
paresthesia	a form of decompression sickness characterized by abnormal skin sensations; for example, itching and hot and cold sensations. It may be caused by the formation of gas bubbles in the layers beneath the skin.
partial pressure	the pressure exerted by any single constituent of a mixture of gases.
PCO_2	partial pressure of carbon dioxide
peak G	the degree of intensity of an acceleration.
pH	relative acidity of blood: chemical balance
photopic	the vision in the daytime or in bright light in which cones of the retina are primarily used.

pitch the rotation of an aircraft about its lateral axis.

plasma the fluid portion of the blood containing many dissolved compounds including proteins, carbon dioxide, bicarbonates, sugar, and sodium.

platelets disk-shaped structures found in the blood and known chiefly for their role in blood coagulation.

PO_2 partial pressure of oxygen

POI program of instruction

ppm parts per million

presbycusis a hearing loss attributed to old age and the aging process in general. It can be conductive or sensorineural in nature; it is commonly referred to as “senile deafness.”

presbyopia a visual condition that becomes apparent especially in middle age and in which loss of elasticity of the lens of the eye causes defective accommodation and inability to focus sharply for near vision.

pressure altitude a pressure expressed in feet of altitude. It can be obtained by reading the altitude indicated on the altimeter set at 29.92in/Hg (the standard datum plane).

pressure breathing the act of breathing in which the gases respired are at a pressure greater than the ambient pressure. During pressure breathing, the normal respiratory cycle is reversed; that is, inhalation becomes the passive phase of respiration and exhalation, the active phase.

pressure demand a type of oxygen-delivery system (mask and regulator) that incorporates both the standard demand mechanism and a mechanism for delivering oxygen under a positive pressure to the user. This process necessitates pressure breathing.

pressure differential the difference in pressure, usually expressed in pounds per square inch, that exists between one or more objects or parts of the same object. This also refers to a system of pressurizing aircraft cabins in which the cabin pressure is kept uniformly higher than the ambient pressure.

pressure gauge an instrument used to measure the air or oxygen pressure in any given system. The dial on the face of this gauge indicates the pressure within the system in pounds per square inch.

pressure suit (full) a specially designed suit that protects the individual by surrounding the body with a pressurized gas envelope.

pressurized cabin any aircraft interior that is maintained at a pressure greater than ambient pressure.

PRK photorefractive keratectomy

proprioceptive system a combination of the vestibular, subcutaneous, and kinesthetic sensors that enables an individual to determine body position and its movement in space.

psi pounds per square inch

pub publication

PVO_2 venous pressure of oxygen

radial acceleration any change in the direction of a moving body without a change in its speed.

radial keratotomy a surgical procedure that creates multiple, radial, spokelike incisions on the cornea of the eye in an effort to produce better visual acuity.

radiation (heat) the transfer of heat in the form of wave energy from a relatively warmer body to a cooler body.

rapid decompression the sudden loss of pressure from an area of relatively high pressure to one of a lower pressure. Conventionally, a decompression that occurs in one second or more is termed a "rapid decompression."

RBC red blood cell

red blood cells the cells in blood that contain, among several other components, the homoglobin necessary for transport of oxygen.

redout the phenomenon in which individuals lose their vision (and concurrently sometimes lose consciousness) and see nothing but red in their field of vision. It often occurs when individuals are experiencing –Gz. Redout is believed to be the result of engorgement of facial blood vessels and the movement of the lower eyelid over the eye.

relative gas expansion the number of times that a given volume of gas will expand when the pressure surrounding it is reduced. It is conventionally determined for body gases by dividing the initial gas pressure by the estimate final gas pressure. These pressures must be corrected for the constant water vapor pressure of 47 mm/Hg at normal body temperature.

relative humidity the amount of water vapor in a given sample of air at a given temperature. This is expressed as a percentage of the maximum amount of water vapor that the same sample could contain at that temperature.

REM rapid eye movement

residual volume the volume of air always present in the lungs and that can be removed only be surgery.

respiration the process of pulmonary ventilation. This involves gas diffusion between the lungs and the blood, gas transport by the blood between the lungs and body tissues, the diffusion of gas between the blood and the body tissues, the use of oxygen within the cells,

	and the elimination of carbon dioxide and water as the chief waste products of the cell.
retina	the sensory membrane that lines the eye, receives the image formed by the lens, is the immediate instrument of vision, and is connected with the brain by the optic nerve.
retinal rivalry	the difficulty that eyes have in simultaneously perceiving two dissimilar objects independent of each other because of the dominance of one eye.
rhodopsin	a photosensitive purple-red chromoprotein in the retinal rods that enhances night vision; commonly referred to as visual purple.
rods	the nerve endings located in the periphery of the retina that are sensitive to the lowest light intensities. They respond to faint light at night and in poor illumination. The rods can neither discern color nor perceive detail.
roll	the rotation of aircraft about the longitudinal axis.
RPM	revolutions per minute
scuba	self-contained underwater breathing apparatus
SD	spatial disorientation
sec	second
SF	standard form
SL	sea level
SOP	standing operating procedure
speed	The magnitude of motion and the rate of change of an object. It is expressed as distance covered in a unit of time such as miles per hour.
SR	special report
ST	special text
STANAG	standardization agreement
STEL	short-term exposure limit
TB	technical bulletin
TC	training circular
TH	training helicopter
TLV	threshold limit value
TM	technical manual
TO	technical order
TRADOC	United States Army Training and Doctrine Command
UH	utility helicopter
US	United States (of America)

USA	United States Army
USAARL	United States Army Aeromedical Research Laboratory
USAAVNC	United States Army Aviation Center
USAF	United States Air Force
USAFSAM	United States Air Force School of Aviation Medicine
USAR	United States Army Reserve
USASAM	United States Army School of Aviation Medicine
velocity	the speed in a given direction. It describes the magnitude and the direction of motion. Velocity is measured in distance per unit of time such as feet per second.
vestibule (of ear)	the oval cavity in the middle of the bony labyrinth in the ear.
VMC	visual meteorological conditions
WBC	white blood cell
WGBT	wet globe bulb temperature
Xe	xenon
yaw	the rotation of aircraft about the vertical axis